Electronic Mail A Physician Extender?

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I remember having a conversation 20 years ago with colleagues in New Hampshire about the logic of charging patients for my time spent talking on the phone with them, just like the lawyers did. Those were the days, of course, when medical insurance plans paid dutifully for all charges by physicians. Not costs—charges! Every now and then, a charge had to be justified, but not often.

But those telephone calls—they were the outliers, the service rendered without compensation, the sponges of time. As we all know, things have changed. Full capitation demands that office visits, consultations, and hospital admissions be kept to a minimum.

What about telephone calls? They are now surrogate office visits. For established patients, the phone saves time for the physician, staff, and patient. Many calls can be handled by the office or clinic nurse, who may know the patient as well as the physician does. The problem is that the telephone may work for handling medical problems, but it is a time-consuming monster. "Phone tag" wastes minutes and hours. Messages left on voice mail invariably have a strong ring of frustration throughout their content, and the returned phone call as often results in a busy signal or an answering machine message as in a connection with the concerned patient. The message slips pile up on the desk; there is never enough time to answer them all.

Electronic mail is a good solution. It is becoming more available as the number of desktop computers and modems proliferates in homes and offices. Its advantages as a replacement for telephone contact between patients and physicians are multiple:

- Receiving and answering a question by e-mail consumes about a tenth of the time used by the telephone for physicians, nurses, and secretaries.
- E-mail is usually direct communication, without frills or amenities. You end an e-mail message the moment you wish. A short, pithy e-mail message to a patient is acceptable, whereas given by phone it would be perceived as brusque and rude.

- Programs such as EUDORA enable both physicians and patients to "Reply" to one another instantly with a click of the cursor.
- A summary of a patient's phone call and the physician's reply on the phone is, at best, a shorthand retrospective summary that often is inadequate and, at worst, has been contested as such in the courts. In contrast, a paper printout for the permanent record of a message and the reply by e-mail is available by just a click of the cursor.
- The time of day for reading and answering e-mail is chosen by the physician. It can be late at night or early in the morning. No one is unwillingly awakened by the delivery of e-mail. Sensory-advantaged physicians can even talk on the telephone while reading and answering e-mail.
- The most demanding patients are those who telephone their physicians most often. Daily contact by email rather than by telephone is a major stress reliever for physicians. For anxious patients, the assurance that their message will be both received and read only by their physician is therapeutic in itself.

Report of a Case

The patient, a 31-year-old account executive in a public relations firm who was transferred to San Francisco from New York City, was referred by her rheumatologist there for continued management of a mild systemic lupus erythematosus. This was manifested primarily as intermittent nondeforming synovitis. We met for 45 minutes (maximal time allowed for new patients) in the Stanford University Immunology-Rheumatology Clinic. In summary, she was having a flare of symptoms and signs that previously had responded to the use of hydroxychloroquine sulfate. I gave her a prescription for this antimalarial drug (Plaquenil; 200 mg twice a day), with plans for an eye examination in three months, and she went back to work. I told her to let me know by email how she was feeling.

The following are the content of her e-mail messages and my responses. They first arrived about three weeks after I had seen her.

(Harris ED Jr. Electronic mail: a physician extender? West J Med 1997 Feb; 166:123-125)

Follow-up by E-mail

SENT: Monday, November 4, 1996, 1:48 PM

To: medusa@leland.Stanford.edu Subject: New symptoms of something

Dear Dr Harris,

I am having problems with headaches, fatigue, diarrhea, and extreme nausea, which I think might be related to my condition or the medication we are treating it with. I am guessing it is important for you to know about all of them, and I am seeking some help in combating the nausea.

- 1. I used to have headaches now and then, but now I have them several times a day.
- 2. I am constantly tired and can sleep pretty much anytime. This seems to have been steadily increasing over time, though, and has not dramatically shifted with the medicine.
- 3. I am certainly beginning to witness a trend of getting diarrhea about once every other week. This would be true of the last 6 weeks at least.
- 4. I used to feel sick on the way to work in the morning, but now I feel sick almost all of the time. I feel extremely nauseous in the car (this didn't used to be the case) and when I haven't eaten for a while. This is a dramatic change that is difficult for me to deal with as I drive a lot for my job, and it makes weekend getaways anything but relaxing.

I stopped the Plaquenil on Sunday because of the nausea, but will restart it if you think that is advisable. I realize that I probably shouldn't have stopped it, but I had a drive back from Carmel that was looming before me, and I chickened out at pill-taking time. Naturally, I was sick the whole way anyway. Please advise.

P.S. Sorry to be a pain—I'm not usually so high maintenance. In fact, I'm usually something close to zero maintenance and exceedingly proud of it. So much for pride. . . .

Carrie Sporn [fictitious name]

My response an hour later when I came back to my office for a half hour is as follows:

SENT: Monday, November 4, 1996, 2:56 PM

To: csporn@somecompany.com SUBJECT: New symptoms of something

Ms Sporn: Tell me exactly what medications you are now taking, the dose, and the time of day. Thanks. Sorry you're feeling so rotten.

Dr Harris

SENT: Monday, November 4, 1996 7:04 PM

To: medusa@leland.Stanford.edu Subject: New symptoms of something

Dear Dr Harris,

I am taking 200 mg of the generic version of Plaquenil, hydroxychloroquine, two times a day with food. By the way, the nausea has not decreased though I have not taken it since Sunday morning. Perhaps it is unrelated and I should see my GP?

Carrie

I responded the next morning, before going to a meeting at the hospital.

SENt: Tuesday, November 5, 1996, 6:48 AM To: csporn@somecompany.com

Carrie, You'll have to experiment and stop the Plaquenil to see if the nausea goes away. If it does, I'd restart, but take only one Plaquenil each day. If it doesn't, by all means see your primary care physician. Who is it, anyhow?

Dr H

SENT: Thursday, November 7, 1996, 9:14 AM To: medusa@leland.Stanford.edu

Dear Dr Harris,

My pcp is Dr Lee. He is here in SF, four blocks from my apartment, and works at the Montgomery Clinic.

Carrie

SENT: Thursday, November 7, 1996, 10:59 AM To: csporn@somecompany.com

Carrie, After you see Dr Lee next, ask him to give me a call (page at 723-8000, pager ID #352), and we can compare notes and impressions.

I'm glad you got in touch with Susan Black, the counselor I recommended.

Dr H

SENT: Thursday, November 7, 1996, 2:17 PM

To: medusa@leland.Stanford.edu

SUBJECT: Thanks

I don't know if I'm going to bother to see Dr Lee, as I'm feeling significantly better today. I am beginning to wonder if it wasn't just some virus or something I ate. At any rate, I feel reborn! I will experiment with restarting Plaquenil and let you know of any adverse effects.

By the way, thank you for introducing me to Susan Black. I enjoy working with her and feel a little less stressed already.

Sincerely, Carrie This entire exchange took less than five minutes of my time, none of my staff's time, and I—not my beeper or the telephone—picked the moment in my day to read and answer my e-mail. This last element may be the most important. I could entertain the illusion, if not the reality, that I had some control over scheduling my life.

E-mail interaction with patients also protects physicians from being blind-sided by a question for which an answer can be found but is not on the tip of the tongue or, more embarrassing, by a name that cannot be linked with a face or an illness. An e-mail response can be well thought out and can avoid the problem of an intemperate response to verbal irritants.

What about the scores of patients who have no e-mail address or access to a computer? For now, they will use the telephone.